AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (original) A butterfly valve in which a cylindrical flow passage is formed in the valve body such as to penetrate the valve body, a sheet ring made of elastic sealing material is mounted in the valve body, a disk-like valve element which comes into contact with and separates from the sheet ring is rotatably and pivotally supported by the sheet ring, a valve rod shaft supporting portion is formed in a radial direction of the valve body, the valve rod shaft supporting portion pivotally supports valve rods which pivotally support the valve element, an actuator is connected to an outer end of one of the valve rods, thereby driving and rotating the valve element, wherein a portion of the one valve rod which extends outward is pivotally supported, the valve shaft cylindrical portion which is connected to the valve rod shaft supporting portion is made of material different from that of the valve body, ends of the valve shaft cylindrical portion and the valve rod shaft supporting portion are formed into rectangular cylindrical recess and projection which are fitted to each other, a fitting projection and a fitting groove which fit to fitting surfaces of the valve shaft cylindrical

portion and the valve rod shaft supporting portion are formed, a connection pin is driven into the fitting portions of the valve shaft cylindrical portion and the valve rod shaft supporting portion and they are connected to each other in a falling-out preventing state.

2. (original) A butterfly valve according to claim 1, wherein a compression margin of the sheet ring with respect to an inner peripheral surface of the valve body is set such that the compression margin is small at a central portion of the sheet ring and the compression margin is great at opposite sides of the sheet ring so that the sheet ring is held by the inner peripheral surface of the valve body by an elastic fastening force at the opposite sides, the central portion of the sheet ring with which the valve element comes into contact under pressure is allowed to move slightly together with the valve element, and a movable torque of the valve element is reduced.

3. (currently amended) A butterfly valve according to claim 1 ~~or 2~~, wherein a cylindrical bush whose one end is closed is inserted into the other valve rod, an inner end of the bush is brought into contact with the sheet ring under pressure to seal the valve rod, and outer end of the bush is supported in a falling-out preventing state by means of a pin which is driven into the valve rod shaft supporting portion.

4. (currently amended) A butterfly valve according to ~~any one of claims 1 to 3~~ claim 1, wherein the actuator comprises a coupled body of upper and lower to gear boxes in which a manually driven worm gear mechanism, both the upper and lower gear boxes are molded products made of synthetic resin, a stopper portion which limits a rotation range of the worm gear mechanism is integrally formed in the gear box, one connection peripheries of the upper and lower gear boxes are formed with upper standing walls to which the other peripheries are fitted, the upper standing wall is provided at its outer side with a sealing projection.

5. (currently amended) A butterfly valve according to ~~any one of claims 1 to 4~~ claim 1, wherein the valve body is molded using aluminum die cast, and the valve shaft cylindrical portion is molded using synthetic resin having insulative properties.

6. (currently amended) A butterfly valve according to ~~any one of claims 1 to 5~~ claim 1, wherein the valve shaft cylindrical portion is molded using iron-based casting or metal material which is different from that of the valve body.

7. (currently amended) A butterfly valve according to ~~any one of claims 1 to 6~~ claim 1, wherein a thickness of an inner surface

angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion.

8. (original) A butterfly valve according to claim 2, wherein a slanting surface is formed between the inner peripheral surface and the outer peripheral surface of the sheet ring, an angle and a width formed by the slanting surface and the outer peripheral side surface are the greatest at a position intersecting with the valve shaft at right angles and are the smallest at a position of the valve shaft.

9. (currently amended) A butterfly valve according to claim 2 ~~or 8~~, wherein a central portion of an inner peripheral surface of the valve body is allowed to project inward to form an engaging projection, a recess groove into which the engaging projection is engaged is formed in the outer peripheral surface of the sheet ring, and the sheet ring is held by engaging the engaging projection and recess groove with each other.

10. (currently amended) A butterfly valve according to claim 2, ~~8 or 9,~~ wherein a slanting surface is formed between the inner peripheral surface and the outer peripheral surface of the sheet ring, an angle and a width formed by the slanting surface and the

outer peripheral side surface are the greatest at a position intersecting with the valve shaft at right angles and are the smallest at a position of the valve shaft.

11. (original) A butterfly valve according to claim 3, wherein an O-ring is interposed between the bush and the valve rod shaft supporting portion to seal a gap therebetween.

12. (currently amended) A butterfly valve according to claim 3 ~~or 11~~, wherein a knob is formed on an outer end of the bush for taking out the bush.

13. (original) A butterfly valve in which a cylindrical flow passage is formed in the valve body such as to penetrate the valve body, a sheet ring made of elastic sealing material is mounted in the valve body, a disk-like valve element which comes into contact with and separates from the sheet ring is rotatably and pivotally supported by the sheet ring, a valve rod shaft supporting portion is formed in a radial direction of the valve body, the valve rod shaft supporting portion pivotally supports valve rods which pivotally support the valve element, an actuator is connected to an outer end of one of the valve rods, thereby driving and rotating the valve element, wherein a portion of the one valve rod which extends outward is pivotally supported, the valve shaft cylindrical portion which is connected to the valve

rod shaft supporting portion is made of material different from that of the valve body, ends of the valve shaft cylindrical portion and the valve rod shaft supporting portion are formed into rectangular cylindrical recess and projection which are fitted to each other, a fitting projection and a fitting groove which fit to fitting surfaces of the valve shaft cylindrical portion and the valve rod shaft supporting portion are formed, a thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion, a connection pin is driven into the fitting portions of the valve shaft cylindrical portion and the valve rod shaft supporting portion and they are connected to each other in a falling-out preventing state, the valve body is molded using aluminum die cast, and the valve shaft cylindrical portion is molded using synthetic resin having insulative properties, a slanting surface is formed between the inner peripheral surface and the outer peripheral surface of the sheet ring, an angle and a width formed by the slanting surface and the outer peripheral side surface are the greatest at a position intersecting with the valve shaft at right angles and are the smallest at a position of the valve shaft, a central portion of an inner peripheral surface of the valve body is allowed to project inward to form an engaging projection, the sheet ring is brought into contact with

the inner peripheral surface of the valve body under pressure in the opposite sides of the recess groove, the cylindrical bush whose one end is closed is mounted to the other valve rod which pivotally supports the valve element, and the other valve rod is sealed.

14. (new) A butterfly valve according to claim 2, wherein a cylindrical bush whose one end is closed is inserted into the other valve rod, an inner end of the bush is brought into contact with the sheet ring under pressure to seal the valve rod, and outer end of the bush is supported in a falling-out preventing state by means of a pin which is driven into the valve rod shaft supporting portion.

15. (new) A butterfly valve according to claim 2, wherein the actuator comprises a coupled body of upper and lower to gear boxes in which a manually driven worm gear mechanism, both the upper and lower gear boxes are molded products made of synthetic resin, a stopper portion which limits a rotation range of the worm gear mechanism is integrally formed in the gear box, one connection peripheries of the upper and lower gear boxes are formed with upper standing walls to which the other peripheries are fitted, the upper standing wall is provided at its outer side with a sealing projection.

16. (new) A butterfly valve according to claim 3, wherein the actuator comprises a coupled body of upper and lower to gear boxes in which a manually driven worm gear mechanism, both the upper and lower gear boxes are molded products made of synthetic resin, a stopper portion which limits a rotation range of the worm gear mechanism is integrally formed in the gear box, one connection peripheries of the upper and lower gear boxes are formed with upper standing walls to which the other peripheries are fitted, the upper standing wall is provided at its outer side with a sealing projection.

17. (new) A butterfly valve according to claim 2, wherein the valve body is molded using aluminum die cast, and the valve shaft cylindrical portion is molded using synthetic resin having insulative properties.

18. (new) A butterfly valve according to claim 3, wherein the valve body is molded using aluminum die cast, and the valve shaft cylindrical portion is molded using synthetic resin having insulative properties.

19. (new) A butterfly valve according to claim 4, wherein the valve body is molded using aluminum die cast, and the valve shaft cylindrical portion is molded using synthetic resin having insulative properties.

20. (new) A butterfly valve according to claim 2, wherein the valve shaft cylindrical portion is molded using iron-based casting or metal material which is different from that of the valve body.

21. (new) A butterfly valve according to claim 3, wherein the valve shaft cylindrical portion is molded using iron-based casting or metal material which is different from that of the valve body.

22. (new) A butterfly valve according to claim 4, wherein the valve shaft cylindrical portion is molded using iron-based casting or metal material which is different from that of the valve body.

23. (new) A butterfly valve according to claim 5, wherein the valve shaft cylindrical portion is molded using iron-based casting or metal material which is different from that of the valve body.

24. (new) A butterfly valve according to claim 2, wherein a thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick,

the fitting projection and the fitting groove are located near this thick angle portion.

25. (new) A butterfly valve according to claim 3, wherein a thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion.

26. (new) A butterfly valve according to claim 4, wherein a thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion.

27. (new) A butterfly valve according to claim 5, wherein a thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion.

28. (new) A butterfly valve according to claim 6, wherein a

thickness of an inner surface angle portion of the recess with which an angle portion of the projection comes into contact upon reception of torsional stress from the actuator is made thick, the fitting projection and the fitting groove are located near this thick angle portion.

29. (new) A butterfly valve according to claim 8, wherein a central portion of an inner peripheral surface of the valve body is allowed to project inward to form an engaging projection, a recess groove into which the engaging projection is engaged is formed in the outer peripheral surface of the sheet ring, and the sheet ring is held by engaging the engaging projection and recess groove with each other.

30. (new) A butterfly valve according to claim 8, wherein a slanting surface is formed between the inner peripheral surface and the outer peripheral surface of the sheet ring, an angle and a width formed by the slanting surface and the outer peripheral side surface are the greatest at a position intersecting with the valve shaft at right angles and are the smallest at a position of the valve shaft.

31. (new) A butterfly valve according to claim 9, wherein a slanting surface is formed between the inner peripheral surface and the outer peripheral surface of the sheet ring, an angle and

a width formed by the slanting surface and the outer peripheral side surface are the greatest at a position intersecting with the valve shaft at right angles and are the smallest at a position of the valve shaft.

32. (new) A butterfly valve according to claim 11, wherein a knob is formed on an outer end of the bush for taking out the bush.